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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,831	10/23/2003	Noboru Sato	PHCF-03074	5418
21254	7590	06/07/2004		EXAMINER
MCGINN & GIBB, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817				TA, THO DAC
			ART UNIT	PAPER NUMBER
			2833	

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/690,831	SATO ET AL.
Examiner	Art Unit	
Tho D. Ta	2833	<i>Av</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,2 and 4 is/are rejected.
- 7) Claim(s) 3 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 23 October 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 10/23/03.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite because it recites a product and define that product by the process of making it. This claim recites limitations from more than one statutory class of invention. MPEP 2173.05(p). The method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Dibble et al. (4,804,338).

In regard to claim 1, Dibble et al. discloses a terminal structure of cable 17 with shield layer S for attaching the cable 17 to an attached object 13 in water-tightness

while grounding a shield layer S formed on an insulation of the cable 17, comprising: a metal tube 11 one end 11B of which is inserted between the insulation and the shield layer S that are exposed by peeling a jacket of the cable 17 and the other end 11A of which is inserted into a penetrating hole in the attached object 13; a metal sleeve B that is disposed on the shield layer S and is fastened to make the one end 11B of the metal tube 11 closely contact the insulation; a heat shrinkage tube 15 that covers the metal tube 11, the metal sleeve B and the jacket and has a hot-melt layer 16 formed at the inside of the heat shrinkage tube 15, the hot-melt layer 16 being solidified by heat in the heating and shrinkage of the heat shrinkage tube 15; and a shield member 14 that is disposed on the other end of the metal tube 11 such that the shield member 14 closely contacts the wall of the penetrating hole to give a water-tightness therebetween.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Long (3,142,721) in view of Delalle (5,118,313).

In regard to claim 1, Long discloses a terminal structure of cable 1 with shield layer 3 for attaching the cable 1 to an attached object 2 in water-tightness while grounding a shield layer 3 formed on an insulation 7 of the cable 1, comprising: a metal tube 8 one end of which is inserted between the insulation 7 and the shield layer 3 that

are exposed by peeling a jacket of the cable 1 and the other end of which is inserted into a penetrating hole in the attached object 2; a metal sleeve 11 that is disposed on the shield layer 3 and is fastened to make the one end of the metal tube 8 closely contact the insulation 7; and a shield member 10 that is disposed on the other end of the metal tube 8 such that the shield member 10 closely contacts the wall of the penetrating hole to give a water-tightness therebetween.

However, Long does not disclose a heat shrinkage tube that covers the metal tube 8, the metal sleeve 11 and the jacket and has a hot-melt layer formed at the inside of the heat shrinkage tube, the hot-melt layer being solidified by heat in the heating and shrinkage of the heat shrinkage tube.

Delalle teaches a heat shrinkage tube 7 has a hot-melt layer 6 formed at the inside of the heat shrinkage tube 7, the hot-melt layer 6 being solidified by heat in the heating and shrinkage of the heat shrinkage tube 7 for preventing or reducing passage of moisture from the terminal portion 1 to the crimp portion 3.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Long's invention by adding a heat shrinkage tube having a hot-melt layer formed at the inside of the heat shrinkage tube to cover the metal tube 8, the metal sleeve 11 and the jacket 6 as taught by Delalle in order to prevent or reduce passage of moisture from outside entering the connection area and thus provide a better electrical connection.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Long and Delalle as applied to claim 1 above, and further in view of Japan Patent Application 3-78980.

Long as modified by Delalle has been discussed above.

Long discloses that the metal tube 8 includes a flange 9 to be fixed to the attached object 2.

However, Long does not disclose that the flange 9 to be fixed to the attached object 2 through a fixing member.

Japan Patent Application 3-78980 discloses that the metal tube 1 includes a flange 3 to be fixed to the attached object 18 through a fixing member at 2.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Long's invention by adding the fixing member to the flange as taught by Japan Patent Application 3-78980 in order to provide a better attachment feature to the terminal structure.

***Allowable Subject Matter***

8. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to provide, teach or suggest that the metal tube has an outer

diameter equal to the diameter of the jacket of the cable; and in combination with the limitations in the base claim.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho D. Ta whose telephone number is (571) 272-2014. The examiner can normally be reached on M-F (8:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (571) 272-2800 ext 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
THO D. TA  
PRIMARY EXAMINER

tdt  
05/27/04